Title (en)
AMPLIFIER WITH VARIABLE MATCHING CIRCUIT TO IMPROVE LINEARITY

Title (de)
VERSTÄRKER MIT VERÄNDERLICHER ANPASSSCHALTUNG FÜR ERHÖHTE LINEARITÄT

Title (fr)
AMPLIFICATEUR AVEC CIRCUIT D'ADAPTATION VARIABLE POUR AMÉLIORER LA LINÉARITÉ

Publication
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Application
**EP 10744646 A 20100816**

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- US 2010045652 W 20100816

Abstract (en)
[origin: WO2011020112A1] Techniques for reducing distortion and improving linearity of amplifiers are described. In an exemplary design, an apparatus includes a driver amplifier, a variable matching circuit, and a power amplifier. The driver amplifier amplifies a first RF signal and provides a second RF signal. The variable matching circuit receives the second RF signal and provides a third RF signal. The power amplifier amplifies the third RF signal and provides a fourth RF signal. The variable matching circuit matches a fixed impedance at the output of the driver amplifier to a variable impedance at the input of the power amplifier in order to improve the linearity of the amplifiers. In an exemplary design, the power amplifier includes a first transistor (e.g., an NMOS transistor) of a first type, and the variable matching circuit includes a second transistor (e.g., a PMOS transistor) of a second type that is different from the first type.

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